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# FM 10-11

DEPARTMENT OF THE ARMY FIELD MANUAL

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## QUARTERMASTER PACK COMPANY

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DEPARTMENT OF THE ARMY

OCTOBER 1952

AGO 1230B—Oct

# QUARTERMASTER PACK COMPANY



DEPARTMENT OF THE ARMY

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OFFICIAL:

WM. E. BERGIN  
*Major General, USA*  
*The Adjutant General*

J. LAWTON COLLINS

*Chief of Staff, United States Army*

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# CHAPTER 1

## INTRODUCTION

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### Section I. GENERAL

#### 1. PURPOSE

This manual provides information necessary for the efficient functioning of the Quartermaster Pack Company (T/O&E 10-118A). Users of this manual are cautioned to remember that the grade and number of personnel and the amount of equipment are authorized by T/O&E, and so much of this type of information as is contained herein is illustrative only. The current T/O&E and related changes must be consulted.

#### 2. SCOPE

This manual explains the mission, organization, and operation of the quartermaster pack company.

### Section II. THE UNIT

#### 3. MISSION

The mission of the quartermaster pack company is to supplement the organic transportation of category I combat units for the conduct of operations where motor or air transportation will not suffice. Category I combat units perform a combat mission in the forward portion of the active combat area.

#### 4. ASSIGNMENT AND CONTROL

*a. Company.* The quartermaster pack company is a nondivisional unit assigned to army as required, normally in the forward area of the combat zone (fig. 1). The company may operate independently or may be attached for administrative and/or operational control to a Headquarters and Headquarters Detachment, Quartermaster Battalion (T/O&E 10-536).

*b. Division Quartermaster.* When assigned or attached to a division the quartermaster pack company will operate under the direction and supervision of the division quartermaster.

c. *Platoon.* A platoon headquarters with its four pack squads may be detached from the parent company to perform pack operations in another sector of the combat zone. The platoon may function as an independent unit while detached from the company or may be attached to, or serve with or under, another organization.

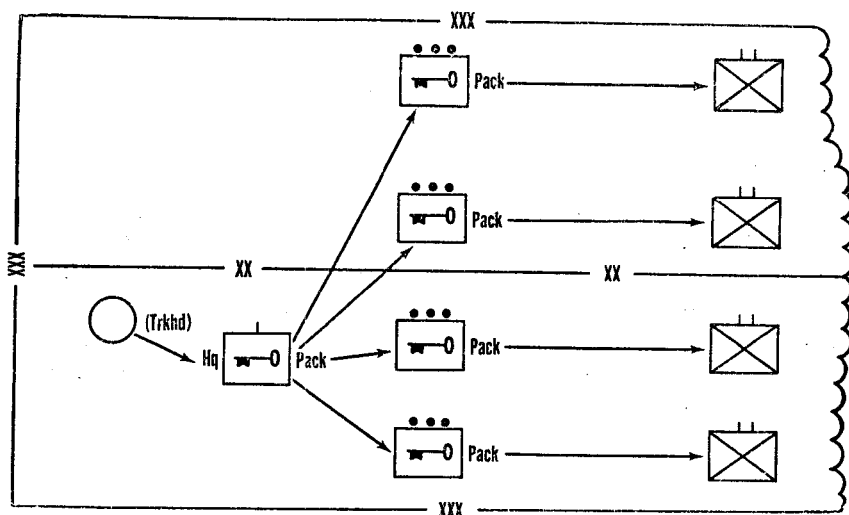


Figure 1. Assignment of quartermaster pack company in the combat zone.

## 5. CAPABILITIES

a. Each pack platoon of the quartermaster pack company is capable of packing 5 plus tons a day, maximum payload of 160 pounds of mule, over a distance not to exceed 6 miles from the truck head. One pack platoon usually fulfills the supply requirements for one infantry battalion. Each pack squad is capable of packing 1 ton plus of light cargo a day.

b. A veterinary animal service detachment (T/O&E 8-500, IC team) will be attached to each pack company to provide necessary animal medical care when authorized by the continental army or theater of operations commander.

c. When authorized by the Department of the Army at the request of the theater of operations, augmentation personnel are provided, including packers and drivers and mess personnel. The addition of augmentation personnel makes possible the assignment of a packer and driver to each mule for operations requiring the maximum quietness and speed.

## 6. RELATED UNITS

*a. Headquarters and Headquarters Company, Quartermaster Group.* Headquarters and headquarters company, quartermaster group (T/O&E 10-22) may be designated by the army commander to control the quartermaster pack company when it is operating in the combat zone or when operating in rear of division rear areas.

*b. Headquarters and Headquarters Detachment, Quartermaster Battalion.* Headquarters and headquarters detachment, quartermaster battalion may be designated by the army commander to supervise and coordinate the administration, training, operation, and supply of the quartermaster pack company and its platoons.

*c. Quartermaster Animal Depot Company.* The quartermaster animal depot company (T/O&E 10-97) supplies the replacement animals used for packing purposes by the quartermaster pack company.

*d. Cellular Units.* Cellular units organized under T/O&E 10-500 may operate with the quartermaster pack company to meet miscellaneous and special quartermaster transportation requirements. The T/O&E provides a pack detachment and pack augmentation with animals to transport light cargo in mountainous or jungle areas that preclude use of vehicles.

## CHAPTER 2

### TRAINING

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#### Section I. TRAINING OF INDIVIDUALS

#### 7. PURPOSE

Individual training prepares each soldier in the pack company to perform his duties efficiently. Training accustoms him to share in military teamwork and prepares him for the next higher job in the company.

#### 8. TRAINING PHASES

Every soldier in the quartermaster pack company is given basic military training, which is the first phase of training, and advanced individual training, which is the second phase. Normally, such training is accomplished concurrently when possible at training centers in the continental United States.

*a. Basic Training.* The basic training objective is to train the individual without prior military service in basic military subjects and fundamentals of infantry combat. The areas of training include adjustment to Army life, will to fight, development of individual responsibility, response to Army discipline, ability to administer first aid, understanding of supply economy, individual concealment and defense, duty as guard, security or patrol, ability to use a compass and maps, understanding of basic intelligence, physical fitness, qualification in individual weapon, and ability in squad tactics.

*b. Advanced Individual Training.* The advanced individual training objective is to train each individual in a military occupational specialty (MOS) in order that he may perform his mission in the company. The areas of training vary with the specific MOS.

*c. Army Training Program.* The current Army Training Program 10-215 is used for the basic military and advanced individual training of the quartermaster pack troops.

#### 9. SCHOOL TRAINING

Army training schools provide basic or advanced training in pack transportation and related subjects. Such schools may be



service schools conducted by the appropriate technical service or schools organized by the company commander in the company training area.

*a. Service Schools.* The company commander may recommend through channels that platoon leaders be permitted to attend appropriate service schools. Noncommissioned officers and enlisted specialists should be encouraged to submit applications for attendance at appropriate service schools. Procedures for obtaining quotas for attendance are outlined in instructions issued by higher headquarters.

*b. Company Schools.* Company schools are used within the pack company for the training of officers, noncommissioned officers, and specialists of the pack company. Such training insures uniform instructions. Refresher training may be given at the company school conducted by the officers and noncommissioned officers of the company. Such training may be instruction in new tactical doctrine or in the use and maintenance of new equipment.

## Section II. UNIT TRAINING

### 10. OBJECTIVES

The training objective is to produce a unit capable of providing transportation for the handling of cargo by animal transport. The unit will be trained to transport supplies in areas that are isolated from truck, rail, or water transport facilities. The unit will be trained to defend itself, to operate under field conditions, and to maintain its animals and equipment.

### 11. PACK PLATOON

The pack platoon must be trained to function with the other pack platoons when the entire company is employed in an operation, and separately when separate platoon operation is necessary. Platoon headquarters must be able to direct the operations of the pack squads. Since each platoon may be required to operate separately, emphasis should be given to the development of initiative and leadership.

### 12. COMPANY

*a. General.* The company must be trained to operate as a unit with each element capable of operating efficiently. Typical situations should be prepared showing how the unit operates with a full complement of personnel.

*b. Company Headquarters.* Company headquarters personnel will be trained to provide the services required for the internal operation of the unit. Subjects will include administration, messing, supply, and motor maintenance.

*c. Type of Training.* Pack training for all personnel of the company must be extensive and carried on over the type of terrain where the company is intended to operate. Physical conditioning of men and animals can be acquired only by daily marching over such terrain. These marches must be short at first and then increased in length and difficulty as physical hardening progresses. Conditioned units must maintain their condition by making marches at least three or four times a week if they are to be in constant readiness for extended field service.

### 13. SUBJECT MATERIAL

Unit training will emphasize defense against air, mechanized, and ground attack; application of camouflage and cover; care and handling of mules; proper use and maintenance of equipment used with the pack animals; proper loading of supplies on animals; and movement of supplies and equipment, map reading, horsemanship and stream crossing, and swimming.

### 14. UNIT TRAINING SCHEDULES

Unit training schedules based on a unit training program outlined by higher headquarters are prepared by the company commander. Policies and procedures described in Army training memoranda, directives, and training manuals are followed (app. I). A suggested minimum training schedule given in appendix II may be used as a guide to the technical training of the company. Unit proficiency standards are outlined in appendix III.

### 15. TRAINING PROGRESS CHART

A chart (fig. 2) containing information relative to training courses offered and completed should be prepared for the unit. A detailed record of each man's progress should be kept.

### 16. PACKER AND DRIVER TRAINING

The following subjects relating specifically to training packers and drivers must be studied during the unit training period (app. II).

*a. Pack Animals.* Students must be taught the types of pack animals encountered in the field and the care of them. Proper



methods of training and conditioning the animals must be explained. Students must be familiar with anatomy, physical capacities, and dispositions of pack animals.

*b. Feeding and Watering.* Students must be taught the amount of food to feed pack animals, the adjustment of the feed bag, and how to check the amount of feed wasted. The importance of avoiding talking and confusion while watering and feeding animals should be stressed.

*c. Grooming.* Students must know the use of grooming tools, including brushing, cleaning the animal's feet, and using the curry-comb.

*d. Pack Saddle.* Students must be familiar with the nomenclature, care, cleaning, assembly, and disassembly of the pack saddle. They also must know how to position and adjust the saddle on the animal. Students must be taught how to adjust the saddle to thin or odd-shaped animals by use of the spare parts outfit furnished for the pack saddle.

*e. Hitches.* Students must be familiar with commonly used hitches, including single and double diamond hitches, the squaw hitch, Phillips' cargo hitch, the basket hitch, and Nagle hitch. They also must know how to splice.

*f. Ties.* Students must be familiar with commonly used ties, including the halter shank tie and picket line tie.

*g. Lairing of Cargoes.* Students must be taught how to lair cargoes by proper wrapping of pack covers (mantas) and proper tying of the package.

*h. Lashing of Cargoes.* Students must be shown how to lash cargoes properly, using the required hitches and slings.

*i. Top Loads.* Students must be taught how to lash top loads when larger loads must be carried or to steady ordinary loads.

*j. Packboards.* Students must be taught how to load packboards to carry human cargoes.

*k. Pioneer Work.* Since pioneer work, including trail-blazing, is an important phase of activity of the company, exercises involving pioneer work of various types should be included in the training plan.

## 17. FIELD PROBLEM

For a field problem lasting 3½ days at the end of the training cycle, students may practice loading forage plus other field equipment considered to be necessary. Loads will be checked by instruc-

tors and the pack train will move out to join companies in the field. One move (first day) and two night moves (second and third days) should be planned. Animals should be returned to stables by 1030 of the fourth day, equipment cleaned, and a critique held. Critiques, where possible should be held on the ground and as soon as possible after the finish of the particular phase of the exercise to be critiqued.

## 18. ON-THE-JOB TRAINING

*a. General.* On-the-job training will be given to each soldier when advanced individual training has qualified him for his particular assignment. Maximum use should be made of demonstrations and group performance. Training should be conducted in accordance with the Department of the Army methods presented in FM 21-5 and with the policies and procedures prescribed in Army training procedures.

*b. Points for Emphasis.* The following points should be emphasized during the training period:

- (1) *Supply economy.* Personnel must be trained to get the maximum service from each item and to use the minimum amount of supplies to accomplish a prescribed mission. They must be impressed with the importance of high standards for the maintenance, use, and storage of property and organizational supplies.
- (2) *Camouflage.* Personnel should be trained in methods of camouflaging bivouac areas to conceal the unit from enemy ground and aerial observation. When adequate cover is not available, or greater dispersion desired, the pack train may be broken down into its platoons, each platoon arranging its own mules, equipment, and cargo.
- (3) *Defense measures.* Personnel must be trained in defense against enemy aircraft, mechanized units, and ground troops (pars. 65-68).
- (4) *Improvisation.* The necessity for improvising methods of operation should be impressed on personnel. Emergency methods of pack transport may be required (FM 25-7).

## 19. CADRE

*a.* The cadre is the key group of trained personnel given the unit commander to establish his unit. They serve as instructors for the untrained members of the organization.

b. The unit commander must always be prepared to furnish a cadre for the activation of a new unit. Cadre understudies must be trained concurrently for all key positions.

## 20. TRAINING REQUISITES

a. *Soldierly Qualities.* Soldierly qualities must be stressed primarily in all training. Efforts will be made to develop control, discipline, familiarity with weapons, and precise and orderly habits. Specialist training will make the trainee familiar with all phases of his job and prepare him to fill the next higher job in his unit. However, specialized training will never interfere with his training as a soldier. The soldier-specialist must be ready to serve as a soldier at any time.

b. *Other Requisites.* The basic principles of hygiene and sanitation, and safety and security will be emphasized throughout the training. Physical training and hardening exercises will be stressed. Chain of command principles will be impressed upon personnel through training exercises in leadership, military courtesy, and drill.

## CHAPTER 3

### ORGANIZATION AND EQUIPMENT

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#### Section I. ORGANIZATION

##### 21. PACK SQUAD

The pack squad is the smallest element of the company (fig. 3).

##### 22. PACK PLATOON

Each of the four pack platoons consists of a platoon headquarters and four pack squads.

##### 23. COMPANY

The quartermaster pack company consists of a company headquarters, four pack platoons (each with four pack squads), and augmentation.

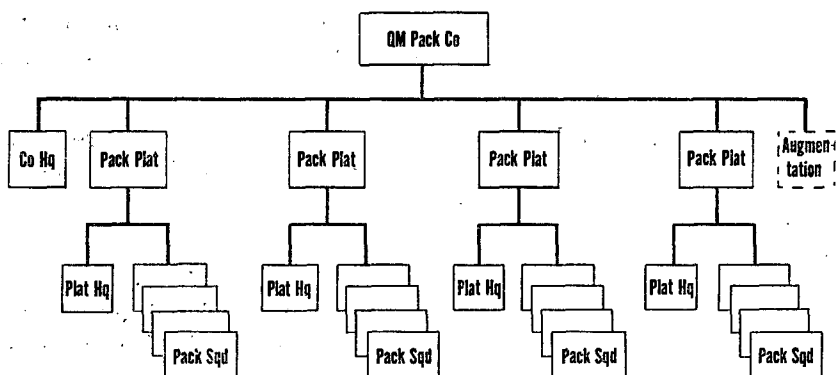


Figure 3. Organizational chart.

#### Section II. EQUIPMENT

##### 24. SPECIALIZED ORGANIZATIONAL EQUIPMENT

The specialized organizational equipment for the quartermaster pack company consists of items to be cared for, used, and maintained by pack troops.

###### a. Pack Mules.

- (1) Pack mules are selected for the company in conformity with FM 25-7 and trained and issued by a quartermaster

animal depot company. The mules may be procured in the continental United States and shipped to the theater of operations or obtained within the theater.

- (2) Pack mules are assigned to the pack squads and to company headquarters. Mules assigned to pack squads carry supplies to using units. Mules in company headquarters carry company supplies, including forage and rations.

*b. Saddle, Pack, Cargo, M-1950.* The M-1950 pack saddle can be used with all sizes of Army pack animals. The saddle is a modified model of Saddle, Phillips' pack, cargo, 25-inch. The modifications consist of—

- (1) Deletion of hooks from the bottom bar pockets.
- (2) Addition of hooks on the bottom bar.
- (3) Substitution of a new bottom bar pocket.
- (4) Increase in the size of cinches from 20 to 24 inches.
- (5) Elimination of the quick-release device.
- (6) Addition of D rings on the front of the pad for use of the collar, breast, saddle, Phillips' pack, when required.

*c. Saddle, Packer's, Riding, Full-Rigged.* The packer's saddle is used when required by each pack platoon leader. For a description of the saddle, see FM 25-7.

*d. Saddle Bag, M-1924.* The M-1924 saddle bag is used with the packer's saddle to carry items of equipment necessary for the pack platoon leaders.

*e. Spare Parts, Saddle, Phillips' Pack, Cargo.* The spare parts outfit for the pack saddles contains various repair items, such as spring ribs, bottom bar pockets, mohair cinches, sparé hair, pins, and hooks.

*f. Tool Set, Horseshoer's No. 1.* The horseshoer's tool set No. 1 complete with tools consists of a lightweight set of tools and equipment for field use. The anvil, forge, and blacksmith's vise are lightweight but strong enough for average field repairs.

*g. Roll, Tool, Canvas, Phillips' Pack Saddle.* The Phillips' pack saddle tool roll consists of various tools useful to the packers and drivers when adjusting the pack saddle, including a collar awl, machinist's ball-peen hammer, hair hook, 6-inch pliers, stuffing rods, and saddle thongs.

*h. Chest, Supply (Pack Artillery), Saddler's.* The saddler's (pack artillery) supply chest (complete) contains canvas tool rolls with tools, saws, hammers, files, punches, needles, and other items necessary for repair and adjustment of saddles and equipment.



i. *Roll, Pioneer, M-1*. The M-1 pioneer roll contains the tools necessary for pioneering in rugged terrain, and includes axes, a hatchet, pick mattocks, D-handled shovels, pliers, and a blacksmith's sledge.

j. *Scabbard, Leather, Carbine, Cal. .30, M1*. The carbine scabbard has a leather body open at the top with a shield positioned near the top of the outer edge to receive the bolt mechanism of the carbine. The scabbard is attached to the saddle by three adjustable straps. The pack platoon leader attaches the scabbard to his mount.

k. *Headstall, Halter, M-1904, Russet*. The halter headstall is fastened over the head of the animal and serves as a means of manual control.

l. *Cover, Pack (Mantas)*. Two cotton duck pack covers (mantas) measuring 6 by 6 feet are provided to cover cargoes on each pack animal.

m. *Cover, Rigging*. Rigging cover measuring 29 feet by 72 inches is used by the packers and drivers to cover the saddles when they are not in use. Each rigging cover protects 10 saddles.

n. *Tank, Watering, M-1940*. The watering tank consists of a cotton duck body in a metal frame forming a circular, collapsible tank. It can be set up in the field for watering animals.

o. *Mask, Gas, Horse, M4*. The horse gas mask serves the same general purpose as masks used by man, except that the animal's eyes are not protected. The M4 mask, issued for each mule in the company, provides for one canister to be carried on either shoulder of the mule. The M4 assembly weighs 15 $\frac{4}{5}$  pounds. Total weight of the mask boxed is 23 pounds, and cubage is 2 cubic feet. For adjustment and care, maintenance, and storage precautions, see TM 3-230.

p. *Outfit, Cooking, 1-Burner, M-1950*. The mountain cookset is combined with the 1-burner M-1950 gasoline cooking stove to make the 1-burner cooking outfit. The mountain cookset consists of two nested cooking pots and a frying pan which is also used as the cover for the cookset. The outfits are supplied for separate operations of two platoons, if required, or for use by the company where the M-1937 field range cannot be used.

q. *Machine, Horse-Clipping, Hand-Operated*. The horse-clipping machine consists of a hand-operated gear box mounted on its own base and connected with the clipper head by a belt, cable, or rod, and gear drive. The clipper head may be moved about the radius of the length of the drive belt, cable, or rod, and con-

tinues to function so long as the gear box continues to be manually operated.

## 25. TRANSPORTATION EQUIPMENT

Trucks and trailers are assigned to the pack company according to T/O&E 10-118A. The equipment is for use of the company headquarters in performing its administrative and operating tasks. Additional transportation must be requisitioned as required from higher headquarters.

## 26. PROVISION OF EQUIPMENT

The latest edition of the T/O&E should be consulted for information as to quantity and type of equipment authorized.

### Section III. MAINTENANCE OF EQUIPMENT

## 27. MAINTENANCE RESPONSIBILITY

Since the company has many items of specialized organizational equipment, a definite maintenance responsibility rests upon each member of the unit. The company commander sees that instructions and procedures for organizational maintenance are strictly complied with by all personnel under his control. He also makes certain that each individual user, wearer, or operator of equipment within his command is trained in the organizational (first echelon) maintenance of his equipment. All officers and noncommissioned officers will insure that instructions and procedures for maintenance operations, which are published in Army regulations, technical manuals, and Department of the Army lubrication orders are strictly complied with by all personnel under their immediate supervision (app. I).

## 28. ORGANIZATIONAL MAINTENANCE

The purpose of organizational maintenance is to detect and correct minor defects before they become major defects.

*a. First Echelon.* First echelon organizational maintenance is that maintenance performed by the user, wearer, or operator of the equipment. This includes the proper care, use, operation, cleaning, preservation, lubrication, and such adjustment, minor repair, testing, and parts replacement as may be prescribed by pertinent technical manuals and tool and parts lists.

*b. Second Echelon.* Second echelon maintenance is the maintenance performed by specially trained personnel provided for that purpose in the using organization. Appropriate publications authorize the second echelon of maintenance additional tools and

the necessary parts, supplies, test equipment, and skilled personnel to perform maintenance beyond the capabilities and facilities of the first echelon.

## 29. MAINTENANCE OF LEATHER AND CANVAS ITEMS

*a. Leather Items.* Leather items that are muddy should be cleaned with an old tooth brush or a blunt piece of wood. A sharp knife is likely to cut the leather and weaken the seams. The items may then be washed with a wet rag or sponge with use of saddle soap. After cleaning, items may be finished with an authorized polishing or preservative material. Metal parts should be cleaned and polished.

*b. Canvas or Duck Items.* Canvas or duck items, such as tents, paulins, and pack and rigging covers must be handled carefully. Do not drag them in the dirt. When using the items, examine them frequently for mildew. If mildew is found, expose them to open air and sunlight. Brush the items frequently to remove dirt and smudge. When stored for a length of time, the items must be stacked on dunnage. Canvas and duck items are repaired by means of the canvas repair kit (TM 10-633).

## 30. MAINTENANCE OF MOTOR VEHICLES

The motor vehicles assigned to the pack company will be maintained by the drivers under the supervision of the supply sergeant serving as motor sergeant for the company. Procedures prescribed in AR 700-105 and TM 37-2810 and in appropriate vehicle technical manuals will be followed (app. I).

## 31. MAINTENANCE RECORDS

The prescribed maintenance records for motor vehicles will be kept by the supply sergeant. AR 700-105 lists approved forms for motor vehicle maintenance.

## 32. SUPPLY OF SPARE PARTS AND TOOLS

*a. Allowances.* Authorized initial allowances of spare parts and tools for company equipment usually are supplied with the equipment. Company supply personnel will maintain the authorized stock level by requisition from or exchange with the designated supply organization.

*b. Requisitions.* Requisitions for all spare parts for vehicles should contain the make, model, and serial or series number of the vehicle as well as the official stock number and nomenclature of all items required.

## CHAPTER 4

### DUTIES OF PERSONNEL

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#### 33. PACK SQUAD

Personnel of the pack squad load and handle the pack animals assigned to the squad. The method of handling will be leading the animals.

*a. Squad Leader.* The pack squad leader (fig. 4) supervises the duties assigned to the men and animals in his squad. He supervises and assists in saddling, loading, and lashing cargoes; observes the position of cargo on all animals of his squad during marches to detect weight shifts; removes animals from the march column when they become fatigued, injured, have a faulty gait, or loose shoes; determines alternate routes of march when the platoon leader or company commander is absent, and renders first aid to animals, when necessary. In addition to initiative and a sense of responsibility, the squad leader must have a thorough knowledge of the technical operations of the pack company and be trained as an animal pack supply specialist.

*b. Assistant Squad Leader.* The assistant squad leader must be able to perform the duties of the squad leader when the squad leader is absent. He should have the same basic knowledge and training of the squad leader.

*c. Packers and Drivers.* Packers and drivers working in pairs load and unload mules. They also perform first echelon repairs on equipment, and observe the animals they are driving for fatigue or injury. They work under the supervision of the squad leader or his assistant. Each packer and driver usually leads two mules when the squad is operating but may lead more when the tactical situation requires shifts in personnel. When augmentation personnel are attached, each packer and driver leads one mule.

#### 34. PLATOON HEADQUARTERS

Platoon headquarters performs the necessary administrative and housekeeping duties and directs the activities of the platoon when it is operating as a separate unit. It coordinates and directs the operations of the subordinate pack squads.

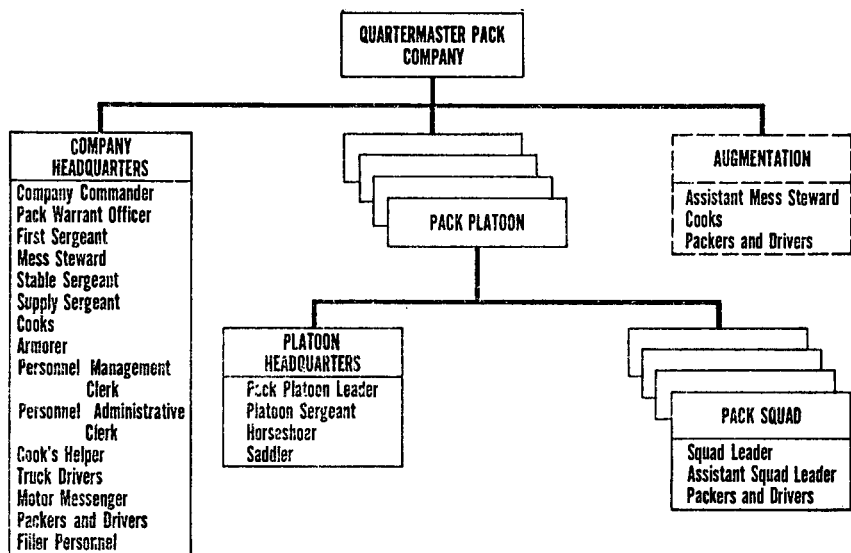


Figure 4. Distribution of personnel.

*a. Pack Platoon Leader.* The platoon leader, a commissioned officer, is in charge of platoon operation both when the platoon is operating as a separate platoon and when it is operating in conjunction with the company. Since the platoon may be detached from the company at any time for separate operations, the platoon leader must be certain that the platoon is ready for such an assignment. He assumes responsibility for the administration, supply discipline, and security of the platoon when it is detached from the company. He must be familiar with all the duties performed by the company commander. He must be familiar with the duties of subordinates and able to supervise the planning and adjusting of loads to insure efficiency. He inspects equipment and matériel of the platoon for proper maintenance and animals for proper care. He must have a knowledge of animal husbandry and be thoroughly familiar with the fundamentals of pack transportation. He is assigned a riding animal.

*b. Platoon Sergeant.* A platoon sergeant is assigned to each platoon. The platoon sergeant assists the platoon leader in the performance of duties and assumes the duties of the platoon leader if the occasion arises. He should be thoroughly familiar with the duties performed by personnel in the platoon headquarters and pack squads. He performs the duties of the first sergeant of the company when the platoon is operating separately. He supervises the saddling, loading, and lashing of cargo on mules of the platoon, inspects animals and equipment for serviceability, removes animals

from the march train when necessary, and determines the route and rate of march. He must have a thorough knowledge of the organization, administration, and technical operations of pack animal management and transportation. He must be familiar with Army publications pertaining to the care, training, and handling of pack animals.

*c. Horseshoer.* The horseshoer performs his duties under the supervision of the platoon sergeant. The horseshoer removes old shoes from pack animals, trims and shapes the hoofs, fits and cuts old shoes, and nails them to the hoofs of the animals. He cuts and fits special shoes when required by the terrain and maintains a record of shoeing. He administers first aid to injured or ailing animals. (See also FM 25-5.)

*d. Saddler.* The saddler repairs the pack saddles, packers' riding saddles, harness, and equipment for pack transportation made of leather or canvas. He should be trained as a canvas and leather repairman.

### 35. COMPANY HEADQUARTERS

Company headquarters is responsible for the administrative functions of the company and provides the supply and mess facilities for company personnel.

#### *a. Company Commander.*

- (1) The company commander is responsible for the administration, instruction, training, discipline, security, and operations of the company. He is assisted in his duties by the company officers, the first sergeant, the mess steward, the supply sergeant, and the stable sergeant. In the absence of the company commander, one of the platoon leaders will serve as commander.
- (2) The company commander is responsible for efficient operations of the pack company, as follows:
  - (a) Following the directives from higher authority in planning the operations of the company.
  - (b) Planning the movements of the pack train in the most practical manner to accomplish the assignment.
  - (c) Exercising general supervision over pack procedures.
  - (d) Maintaining necessary records of operations.

#### *b. Administrative Personnel.*

- (1) *Pack warrant officer.* The pack warrant officer has general supervision over the technique of pack transport, assignment of animals to drivers, animal management,

and care and conditioning of the animals of the pack company.

- (2) *First sergeant.* The first sergeant is the noncommissioned administrative assistant to the company commander. He transmits all orders of the company commander to the enlisted personnel and acts as liaison between the enlisted personnel and the company commander. He must have a thorough understanding of the pack company, its operation, and its relation to other units. He must have a personal knowledge of the men in the company and should be well acquainted with their individual training and capabilities. He relieves the company commander of much of the administrative detail connected with operating company headquarters.
- (3) *Company personnel management clerk.* The company personnel management clerk prepares the morning report; maintains the company sick book, duty rosters, individual qualification cards, and other records; files orders and other papers; types correspondence; counsels personnel on planning their Army careers; and performs other duties as required.
- (4) *Personnel administrative clerk.* The personnel administrative clerk maintains files and service records; prepares military pay orders, personnel records for transfer, company orders, and correspondence; acts as receptionist for the command; and performs other duties as required.

*c. Pack Personnel.*

- (1) *Stable sergeant.* The stable sergeant works under the supervision of the pack warrant officer. The duties of the stable sergeant are outlined in FM 25-5.
- (2) *Packers and drivers.* The packers and drivers assigned to company headquarters assist the stable sergeant. When the company headquarters is making a pack movement, they pack the organizational equipment of company headquarters and guide the mules assigned to company headquarters.

*d. Supply Personnel.*

- (1) *Supply sergeant.* The supply sergeant is assistant to the company commander in all matters pertaining to supply and issue of individual and organizational clothing and equipment and expendable supplies. He prepares requisitions for supplies, checks supplies received and issued, and reports to the company commander any discrepancies noted in quality or quantity.

- (2) *Armorer.* The armorer makes minor repairs on authorized weapons. He also performs miscellaneous organizational tasks, including carpentry and painting. He is qualified to drive a light truck.

*e. Food Service Personnel.*

- (1) *Mess steward.* The mess steward supervises the food service personnel and plans the use of available facilities to provide for the type of operations undertaken by the company. He must make necessary plans to insure satisfactory messing arrangements for a platoon when it is operating at a distance or temporarily detached from the company. He must know how to make a breakdown of the company's rations for a detached platoon and be able to assist the company commander in selecting kitchen personnel and equipment for the platoon.
- (2) *Cooks.* The cooks, under the supervision of the mess steward, prepare food for the company personnel in conformity with military methods for food preparation. A cook may be assigned to a platoon operating separately and must be trained to provide proper food for the men of a separate platoon.
- (3) *Cook's helper.* The cook's helper assists the cooks in the preparation and serving of food. He cleans utensils, tools, equipment, and the working area in conformity with principles of sanitation. He is trained as a light truck driver.

*f. Motor Personnel.* The motor messenger receives, processes, and delivers outgoing and incoming messages with the assistance of the light truck driver. The motor messenger, when required, serves as a scout in helping locate bivouac sites and pack trail routes.

*g. Veterinarian Personnel.* Veterinarian personnel assigned to the veterinarian animal service unit attached to the pack company include a large animal veterinarian, a chief veterinarian technician, veterinarian technicians, and an assistant veterinarian technician. Duties of veterinarian personnel are outlined in SR 615-25-15. Veterinarian personnel operate their own transportation, whether vehicle or pack.



## CHAPTER 5

### PREPARATION FOR OPERATIONS

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#### Section I. RECONNAISSANCE AND BIVOUAC SELECTION

#### 36. GENERAL

The quartermaster pack company is responsible for route reconnaissance and bivouac selection. Reconnaissance for routes normally precedes selection of bivouac.

#### 37. RECONNAISSANCE

*a. Purpose.* The purpose of route reconnaissance is to select, clear, and mark the most desirable route applicable to the situation. In many instances, pack transportation can be sent over trails or unimproved roads and thus relieve congestion along main routes. Every quartermaster pack train making a trip through unknown territory must be preceded by reconnaissance and pioneer parties.

*b. Methods.* Physical reconnaissance for routes is pushed as far as possible. More passable routes are chosen in preference to more difficult direct routes so that time for the march is held to a minimum. Maps, aerial photos, and liaison planes are used in making a route reconnaissance. Reliable native guides may assist in finding trails through jungles or over mountain terrain. Sufficient time must be allotted for reconnaissance, as often it must be made on foot.

*c. Pioneering.* Pioneer work and trail blazing for a day's journey are accomplished during route reconnaissance. A detail of packers and drivers and other available personnel will be designated to open the trail for the pack train. Trails should be clearly marked and posts for route markers selected by reconnaissance personnel.

#### 38. SELECTION OF BIVOUAC SITE

The factors governing the selection of a site for bivouac of a quartermaster pack company are security, supply, sanitation, and the comfort of men and animals. Consideration also should be given to drainage, concealment, water supply, and grazing facilities.

*a. Company Headquarters.* The bivouac site for company headquarters should be located near the point where supplies for pack transport are to be received. The site should be large enough to take care of the needs of the entire company. A site giving adequate water supply for men and animals is desirable. For requirements of animals, see paragraph 56.

*b. Pack Platoons.* In selecting bivouac areas for the pack platoons en route, avoid river valleys that may flood rapidly, steep hillsides that give poor standing for the animals, and areas containing great amounts of briars or poisonous plants. Further details on reconnaissance and selection of the bivouac site are given in FM 25-7.

## Section II. PLANNING FOR OPERATIONS

### 39. RECEIPT OF ORDERS

The receipt of orders from higher authority will dictate the company commander's plan for operating the pack platoons. These orders will usually indicate the distribution point to be served, the amount and kind of supplies to be packed, the destination, the general route to be followed, and the effective date of the order.

### 40. ESTIMATE OF SITUATION

Upon receipt of orders outlining a mission, the company commander must make an estimate of the situation.

*a. Terrain.* The effect of the terrain on the mission should be studied. The commander should study detailed maps of the region and spot available roads or trails, bridges, fords, passes, and so forth.

*b. Troops.* The commander should determine the troop requirements for the operation and assign missions to the platoons. He should designate, if possible, the general areas for bivouacs and decide whether reports will be required from the platoons. He should decide whether extra personnel are required to guard cargoes.

*c. Enemy Activity.* He should find out from G-2 the extent of enemy activity, both air and ground.

*d. Support Available.* He should contact G-3 to find out the disposition of supporting elements and the nature of the operation they are engaged in.

*e. Animals.* The company commander should consider whether the animals can make a round trip between feedings, whether feed and forage should be carried, or whether forage is available along the route.

*f. Food Supply.* He should determine that proper food is available for pack personnel. This food must furnish maximum food value with minimum weight.

*g. Health and Sanitation.* He should consider whether strict sanitary measures are required to avoid diseases caused by insects and poisonous food sources.

*h. Command Post.* The company commander must select a command post location convenient to the site where the supplies are to be prepared for pack transport.

#### **41. TECHNICAL OPERATIONS**

Light cargoes for the quartermaster pack company are transported by vehicle to the distribution point serving an area inaccessible to vehicles. The pack company then loads and transports the cargo on the backs of pack animals to forward elements on the combat zone. In performing its mission, the pack company may be required to do pioneer work.

## CHAPTER 6

### OPERATIONS OF THE UNIT

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#### Section I. METHODS OF OPERATING

#### 42. INITIAL MOVEMENT

When moving the animals to the packing site at the distribution point, the cargo covers and ropes are wrapped and packed on the pack animals as single loads. However, if the trip is from rear areas, the energy and stamina of the animals should be conserved by use of motor transport. Two and one-half ton trucks with side extensions and sand footing should be used. Movements of animals by rail, air, and water are discussed in FM 25-5.

#### 43. LOADING CARGOES

*a. Preliminary Procedures.* When the pack company arrives at the point for loading cargoes, pack animals are caught and tied and cargoes are laired and matched in balanced loads by packers and drivers under the supervision of the platoon sergeants. If the entire company is delivering the cargoes, the company commander designates the sequence of loading the platoons.

*b. Shipping Ticket.* A copy of the shipping order or ticket which details the items to be transported is given by the distribution point to the platoon leader, squad leader, or other leader.

*c. Distribution of loads by company and platoon is as follows:*

- (1) Where a company pack movement is planned, the first platoon may be assigned to carry the company equipment and supplies. The other platoons may carry the cargoes. Cargoes should be distributed in each platoon and among animals so that all supplies of a certain category will not be lost in the event of enemy action or accident.
- (2) Where a platoon pack movement is planned, the first squad may transport the forage, pioneer equipment, rations, and miscellaneous equipment, and cargoes distributed in the other three squads. Cargoes consisting of various items must be distributed in the squads and among animals so that all supplies of a certain category will not be lost in event of enemy action or accident.

- (3) In certain pack relay operations (par. 47), all pack squads of the platoons may be used for cargo work.

#### 44. DELIVERY OF CARGOES

During daytime operations when air observation and ground fire will not hamper movements, the herded pack train method is used. During night marches (par. 46), cargoes are normally delivered by the led pack train method. One packer and driver is assigned to each animal. The shipping ticket or other document is signed by the receiving officer at the destination.

#### 45. EVACUATION OF CASUALTIES

On the return trip the pack animals of the company may be used to evacuate casualties. One mule can carry one litter case or two casualties able to maintain their balance and ride upright. Use of the cacolet and travois with pack animals is discussed in FM 8-35.

#### 46. NIGHT MARCHES

The quartermaster pack company often marches at night in order to protect itself from aerial observation and air attack or to maintain secrecy. Night marches, usually slower than day marches, average about 4 miles per hour.

*a. Procedures.* When marching at night, especially cross country, the column must be kept closed up to prevent platoons from becoming slot. The route must be carefully marked and guides and route markers employed where necessary. In forward areas smoking and use of lights are prohibited. Talking should be limited to the commands necessary for the execution of the march.

*b. When Avoided.* Night marches should be avoided, when possible, in very mountainous country where narrow trails pass along the edges of steep cliffs, in jungle terrain where the trail is not well cleared, and where mine fields are suspected.

*c. Care of Animals.* Night marches are particularly difficult for pack transport because of the impossibility of keeping loads in proper adjustment. Packs must be light and care taken to see that cinches, particularly rear cinches, are not tightly adjusted. If a mule becomes exhausted from a heavy load or from too tight a cinch, he will lie down and, in darkness, his absence may not be noticed.

## 47. RELAY OPERATIONS

The company commander should consider whether the distance, terrain, and time limits make possible the use of pack relay operations (fig. 5). By the use of pack relay method 1 in the illustration, two pack platoons may be employed to bring supplies from the distribution point to a relay point. At the relay point the supplies can be picked up by the two remaining platoons and transported to the destination. By the use of pack relay method 2, pack supplies may be relayed between several relay points by the four platoons. Method 2 may be used where sufficient time is allowed and a long distance must be covered.

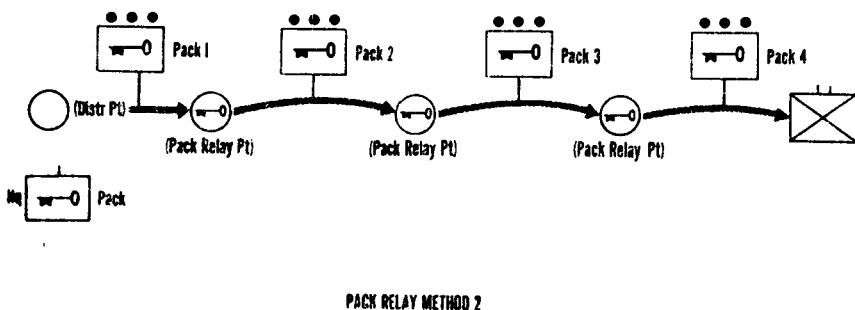
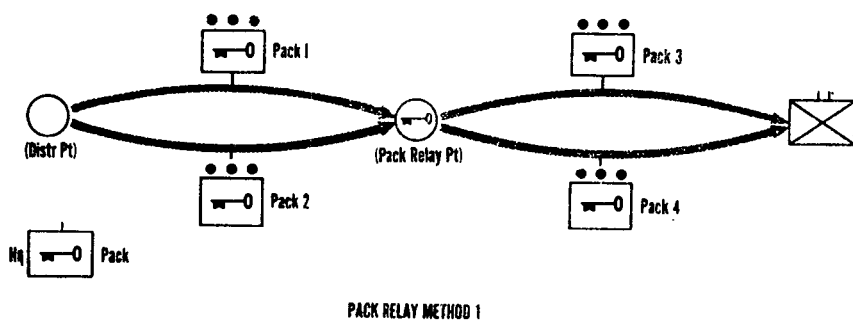


Figure 5. Two methods of relaying pack supplies.

## 48. MESS ARRANGEMENTS

Kitchen trucks for the company will remain in rear areas. Usually mess facilities can be set up near the distribution point. When pack platoons will be absent from the central mess facilities longer than a day, arrangements will be made to use the portable cooking equipment issued to the company (par. 24*p*).

## 49. SHIFTS AND CAPABILITIES

The table of organization for the quartermaster pack company is designed to provide operating personnel for one shift a day. However, with augmentation personnel and additional mules, two shifts a day can be arranged. Additional shifts may be provided from T/O&E 10-500. For capabilities of the pack company, see paragraph 5.

## 50. REFERENCES

Further details on saddling loads, picketing animals, and the operation of pack troops and pack trains may be found in FM 25-5 and FM 25-7.

### Section II. RECORDS AND REPORTS

## 51. RECORDS

Records used by the quartermaster pack company consist of WD AGO Form 10-27, Horse (Mule) Record Card; property record book; forage record; and shoeing record. These records are prescribed in FM 25-5.

## 52. REPORTS

In addition to the annual report of animals which must be made (DA AGO Form 10-26), there are the animal morning report, animal sick report, and the report to higher headquarters. The report to higher headquarters is usually required monthly with information as follows:

### *a. Animal Report.*

- (1) Animals on hand.
- (2) Animals received.
- (3) Animals killed or missing.
- (4) Animals evacuated to a veterination facility.
- (5) Animals transferred.
- (6) Animals on duty.
- (7) Authorized T/O&E strength.

### *b. Operations Report.*

- (1) Tonnage handled.
- (2) Operating hours of each platoon.
- (3) Approximate mileage covered.
- (4) Number of pack animals used.

### Section III. OBTAINING TECHNICAL OPERATING SUPPLIES

#### 53. SOURCE OF SUPPLY

*a. Communications Zone.* In the communications zone, operating supplies of the quartermaster pack company are drawn from the designated depot. Forage may be obtained locally.

*b. Combat Zone.* In the combat zone, operating supplies for the pack company are obtained from the designated army depot or supply point. Where possible, forage is obtained locally.

#### 54. METHODS OF OBTAINING SUPPLIES

Technical operating supplies of the pack company are obtained from depots by requisition. Quantities requisitioned are determined by consumption records. Requisitions are submitted according to standing operating procedures of higher headquarters.

#### 55. FORAGE SUPPLY

*a. Amounts Required.* Where forage must be carried for the animals, each animal should have a daily issue of 8 pounds of oats and 14 pounds of hay. The total forage to be carried by the company estimated on the basis of 276 mules in the company and 64 in the platoon and the animals required for transport is given in table I.

Table I. Forage and Its Transport Requirements (Per Day)

Unit	Forage (pounds)			Transport requirements (No. of animals)
	Oats	Hay	Total	
Company	2,208	3,864	6,072	38
Platoon	512	896	1,408	9

In order to increase the net tonnage of supplies being carried, it is usually desirable that a pack animal replacement pool be maintained at the distribution point and that all forage be stored there.

*b. Obtaining Forage Locally.* Since supply of forage in the field is difficult because of its bulkiness, every effort must be made to obtain forage for animals locally. In mountain areas, grasses usually can be brought in to the picket lines. Animals should be allowed to graze at halts and, if necessary, special grazing formations may be held. In some jungles there will be grassy areas where tall grasses can be obtained. If animals show a preference



for certain leaves, special details can be sent to collect them. Bamboo shoots are generally acceptable to most animals.

#### 56. WATER SUPPLY FOR ANIMALS

Since the transport of water for a day's trip for company animals alone would require the use of more than 100 animals, water for animals must be obtained locally unless the operational situation demands its transport. A mule can transport approximately 19 gallons of water a trip if the water is estimated to weigh  $8\frac{1}{2}$  pounds a gallon. On the basis of 8 gallons a day per animal, the company requires approximately 2,200 gallons a day. The platoon requires approximately 500 gallons a day. However, heavy duty and hot weather may double these requirements.

#### 57. HANDLING SUPPLIES

The quartermaster pack company has sufficient organic transportation to transport its own technical operating supplies. Use of vehicles will be made wherever possible.

#### 58. STORING SUPPLIES

Each platoon of the pack company normally will store its technical operating supplies in a tent or improvised shelter used for supply. Supplies should be placed upon dunnage.

### Section IV. OPENING-UP, TAKING-OVER, AND CLOSING-OUT OPERATIONS

#### 59. OPENING-UP OPERATIONS

The company commander or platoon leader on opening up operations will—

- a. Find out the mission to be accomplished.
- b. Work out the standing operating procedure for the new mission.
- c. Select a site for bivouac of personnel.
- d. Establish sanitary and security measures for the bivouac area.
- e. Arrange for communication facilities with higher headquarters.
- f. Obtain detailed information about the area in which the pack company is to operate.

*g.* Obtain information on the location of adjacent units and units to be served.

*h.* Establish contact where possible with headquarters of units to be served.

*i.* Estimate operating supplies on hand and prepare a report of critical shortages.

*j.* Notify higher headquarters when operations are to begin.

## **60. TAKING-OVER OPERATIONS**

The company commander or platoon leader on taking over operations from another pack company or pack platoon will—

*a.* Find out the mission to be accomplished.

*b.* Acquaint himself with the standing operating procedure.

*c.* Check the security and sanitary measures established for the pack company or platoon in bivouac.

*d.* Establish contacts with higher headquarters and commanders of the units being served.

## **61. CLOSING-OUT OPERATIONS**

The company commander or platoon leader on closing out the operations of the company or platoon will—

*a.* Insure that all phases of orders from higher headquarters have been complied with.

*b.* Prepare a plan for movement of the company and instruct company or platoon personnel in its provisions.

*c.* See that all equipment is loaded properly.

*d.* See that latrines are closed and the bivouac area thoroughly policed.

## **Section V. OPERATING UNDER UNUSUAL CONDITIONS**

### **62. JUNGLE OPERATIONS**

Usually, pioneer work must be done for jungle operations. Mats of brush, small trees, and logs must be laid across marshy ground and bridges built. Maintenance work must continue while the pack train is moving.

### 63. AMPHIBIOUS OPERATIONS

Mules must be trained for landings during amphibious operations. Reconnaissance of the beach should be made to improve footing where necessary.

### 64. MOUNTAIN OPERATIONS

The stamina of both troops and mules must be developed for mountain operations. Animals must be accustomed to the cold weather. Troops must be acclimated to each 5,000-foot rise in elevation. Blasting may be necessary to construct trails over mountainous terrain. Trails must be cut to keep the degree of incline to a practical minimum (FM 25-7.)

## CHAPTER 7

### SECURITY, CAMOUFLAGE, AND DEMOLITION

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#### 65. SECURITY

*a. Training.* Personnel of the quartermaster pack company should receive intensive training in security measures. Since the company is always subject to both ground and air attack because of its forward position, every man must become proficient in the use of the carbine, the machine gun, and the rocket launcher.

*b. Machine Gun, .50 Caliber.* The quartermaster pack company is supplied with the .50 caliber machine gun primarily for protection against aircraft. This machine gun also may be used for ground defense. The weapon should be emplaced so as to have a minimum range of 300 yards at an angle of 45° in all directions. The machine gun is protected by riflemen.

*c. Sub-Machine-Gun, Caliber .45.* The .45 caliber sub-machine-gun normally is used with the ¼-ton truck. Since the company normally operates on terrain inaccessible to trucks, this weapon may not be present for employment of defense of the installation.

*d. Rocket Launcher, 3.5-Inch.* The 3.5-inch rocket launcher is used to bring a superior amount of fire to bear against a lead tank. The rocket launcher should be protected by riflemen.

#### 66. BIVOUAC DEFENSE PLAN

When a bivouac site has been selected for the pack company, measures should be taken to provide a defense plan against surprise attacks by aircraft, airborne troops, or guerillas (fig. 6). The company commander or platoon leader must weigh all possible contingencies and prepare his plan to meet them. Generally, one basic plan with variations for special situations will be adequate for the quartermaster pack company. The plan must be clear and brief enough to be easily understood and flexible enough to meet all types of attack. The defense plan must provide for defense along the entire perimeter.

*a. Fire Plan.* The company commander must first prepare his fire plan, followed by the sighting of weapons and the clearing of fields of fire. Until the fire plan is decided upon, digging fox holes or laying wire is a waste of time as these are necessarily positioned to fit into the fire plan.

*b. Rehearsals.* Rehearsals of bivouac defense plans during day-time and at night must be held frequently.

*c. Defenses in Depth.* The defenses of the quartermaster pack company are in depth. About a third of the company should be available as a reserve for employment in a counterattack.

*d. Guards.* Guards should be posted to operate along the entire perimeter of the bivouac.

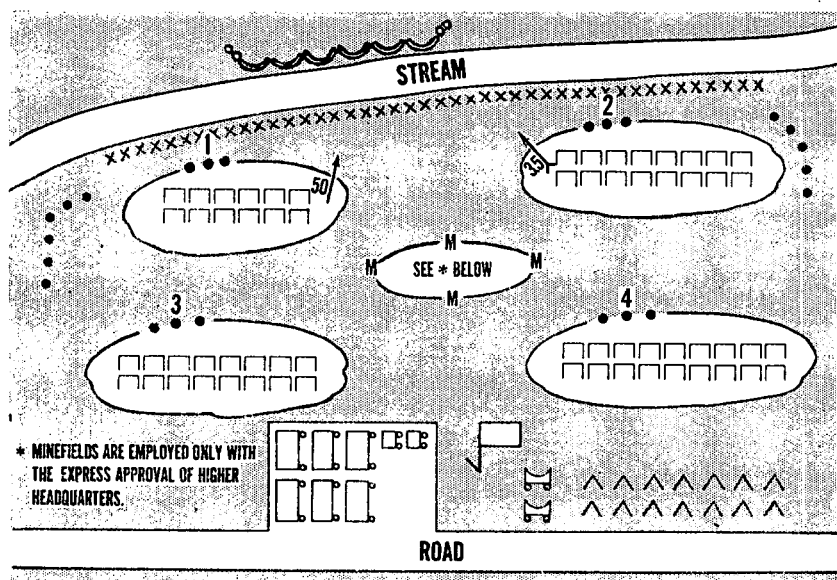


Figure 6. Defense plan for the quartermaster pack company (suggested).

*e. Listening Posts.* To prevent surprise during darkness, listening posts should be established. They should be located so that trails and approaches may be kept under surveillance. Listening posts should be manned by at least two men whose duties will be confined to the recognition of enemy forces and the conveyance of warning to the pack company.

*f. Outposts.* Outposts should be located around the perimeter of the bivouac area at distances ranging from 200 to 500 yards from the area. They should be placed at points covering the natural avenues of approach and entrances and exits to the area. Each outpost should be occupied by at least two men who should be relieved at frequent intervals. Outposts are necessary to warn the unit of the approach of enemy forces and fight a delaying action pending reinforcement if attacked. Outposts will be linked by a visiting patrol of two or more men.

## 67. PACK TRAIN SECURITY

*a. General.* A security guard in number consistent with the tactical situation and the proximity of friendly forces must protect the quartermaster pack train when it is operating in forward areas. The guard should consist of advance, rear, and, if possible, flank guards. The distance the guards operate from the pack train depends on the terrain but generally they should be within sight distance.

*b. Defense Against Ambush.* Because attacks from ambush develop very suddenly, quartermaster pack trains in forward areas should always be prepared for such contingencies. When marching through country suitable for ambush, the company commander must see that the reconnaissance is both aggressive and thorough. Advance, rear, and flank guards should be strengthened. If it is not possible to use flank guards, patrols should be sent short distances down all lateral trails and roads. These patrols should remain in position until the column has passed. At times, it may be necessary to use a special security detachment with the advance guard. Its purpose is to search thoroughly all possible locations for ambush.

*c. Warning System.* An adequate warning system is necessary for pack train security. Signal communication necessary to protect the train includes messenger and visual and sound signals.

## 68. CAMOUFLAGE

The principal defense of the quartermaster pack company is camouflage, a term which includes concealment, dispersion, and deception. Wooded areas offer the best concealment for the pack company. Halts should be made where mules may be dispersed off the road. Stops on steep grades should be avoided. Sentinels should be posted to watch for air reconnaissance or attack. Among the requirements for successful camouflage are good camouflage discipline and the proper selection and use of camouflage material (app. I).

## 69. DEMOLITION

Demolition of supplies and equipment is a command function and is done only on orders from higher authority. Demolition must be as rapid and simple as possible and must render all supplies unserviceable. Special methods of demolition are suggested for different types of supplies and equipment.

*a. Subsistence Supplies.* Explosives may be used to destroy subsistence supplies. Thermite bombs or other flammables will be used to ignite and destroy items. Canned goods may be punctured with ax or bayonet, when time permits.

*b. Ammunition.* Ammunition supplies which may fall in the hands of the enemy should be exploded with TNT.

*c. General Supplies.* General supplies should be destroyed by fire, explosives, or with an ax.

*d. Records.* All records of the pack company that cannot be saved will be burned.

*e. Animals.* To prevent capture by enemy, animals will be destroyed only as a last resort and on orders from higher authority.

## CHAPTER 8

### MOVEMENT

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#### Section I. PACK

##### 70. GENERAL

The quartermaster pack company has sufficient pack animals to move its own personnel and equipment by pack animals, except certain bulky items weighing over 200 pounds. However, the movement of the company by pack train is done only in terrain inaccessible to vehicles. Pack movements are slow, and use of the pack company on road nets may cause traffic tieups. Information on the techniques of pack trains and marches is given in FM 25-7. Distribution of company equipment, rations, and forage in the pack train is outlined in paragraph 43c.

#### Section II. MOTOR

##### 71. REQUIREMENTS

The quartermaster pack company is a fixed unit and is equipped with minimum administrative vehicles only. When the company is to be moved by motor transport, the transportation section of the army to which the company is assigned or attached will coordinate movement arrangements. These arrangements will normally consist of furnishing and supervising necessary motor units, rendering assistance in preparation of the movement schedule and tables, and coordinating traffic control with the traffic control agencies of its own headquarters.

##### 72. LOADING PLAN

For speed and efficiency of movement the loading plan should be uniform throughout the company. Table II gives a suggested loading plan for the company and table III for a platoon operating separately. For transportation of animals by motor, see FM 25-5.



*Table II. Loading Plan for Company*

Truck			Truckload
No.	Type	Position in convoy	
1	¼-ton	1	Company commander and driver. Truck towing ¼-ton trailer carrying saddles.
1	2½-ton	2	Kitchen truck towing 1-ton trailer.
1	2½-ton	3	Tool sets, tentage, tent stove and burner, tent poles and pins, latrine screen, field desk, type-writers, stencil outfit, lanterns, kits, heaters, 5-gallon gasoline cans, barrel pump, command post lamp, and miscellaneous equipment. Truck towing water tank trailer.
1	2½-ton	4	Watering tanks, canvas water buckets, saddle spare parts, grain scoops, tool rolls, pioneer rolls, paulins, horse-clipping machines, rigging covers, pack covers, saddlers' supply chest, horse brushes (boxed), currycombs (boxed), blinders, grain bags, feed bags, scabbards, saddlebags, ammunition carrying bags. Truck towing 1-ton trailer carrying shovels, rakes, pick mattocks, machetes, manure forks, hay forks, axes.
4	2½-ton	5-8	Personnel. <sup>a</sup>
69	2½-ton	9-77	Trucks loaded with four mules per truck.
8	2½-ton	78-85	Trucks loaded with saddles, bridles, saddle breast collars.
1	¼-ton	86	Personnel. <sup>b</sup> Equipment includes machine gun and rocket launcher. Trailer loaded with saddles.

<sup>a</sup> Augmentation personnel require six additional trucks.

<sup>b</sup> Mechanic should be assigned by army to ride in rear vehicle of column to repair vehicles that break down.

*Table III. Loading Plan for Platoon Operating Separately*

Truck			Truckload
No.	Type	Position in convoy	
1	¼-ton	1	Platoon leader.
1	2½-ton	2	Kitchen truck towing 1-ton cargo trailer.
16	2½-ton	3-17	Trucks loaded with four mules per truck.
1	2½-ton	18	Miscellaneous equipment including saddles. Truck towing 1-ton trailer with saddles.
1	2½-ton	19	Personnel. Truck towing 1-ton trailer with individual equipment.

### 73. PLAN FOR MOVEMENT

*a. Administrative Arrangements.* When orders are received to move the personnel of the quartermaster pack company or a platoon to a new location, the company commander will make the necessary administrative arrangements within the company. He will organize the personnel into groups to fit the transportation provided. All equipment to be transported will be packed, marked, and properly loaded on the trucks. The company commander will assemble the personnel of the convoy, outline and discuss the route to be followed, establish march security, and assign specific march duties to personnel. The plan for motor movement will include provision for mess, medical care, and rest en route. When the convoy has reached its destination, the company commander (or platoon leader in a separate platoon movement) will make plans for the unloading of equipment and reuniting of troops and equipment.

*b. Drivers.* Drivers will drive the vehicles to which they are normally assigned.

*c. Reconnaissance Party.* A reconnaissance party should be designated to select halting and quartering areas in advance.

*d. Clean-up Party.* A clean-up party will be designated to inspect quartering areas and halt sites after they are evacuated by the convoy.

*e. Rate of March.* When tactical considerations do not interfere, the following information may be used as a guide in planning the average day's motor march.

- (1) Preparation for march (including time for breakfast, inspection of vehicles, and breaking of camp)—1 hour.
- (2) Running time (including all halts except noon halt)—7 or 8 hours.
- (3) Halt for mid-day meal and refueling—1 hour.
- (4) Inspection and servicing of vehicles after arrival at camp—1 hour.
- (5) Average convoy speed—25 miles per hour. The individual vehicle should not exceed 35 miles per hour.

*f. Quartering.* If the trip is over 200 miles, the maximum distance for a day's travel by truck, shelter must be provided. The shelter may be in bivouac, in a friendly camp or cantonment, or in billet. The requirements for quartering are accessibility, protection against the weather, an adequate supply of water; good natural drainage, firm dry soil, and freedom from sources of disease.

*g. References.* References for specific instructions on motor transportation and convoys are contained in appendix I.

### Section III. RAIL

#### 74. REQUIREMENTS

*a. General.* When the quartermaster pack company is to be moved by rail, cars will be furnished by the Transportation Corps. As soon as the company commander receives orders to move his company or a platoon of the company, he will submit to the local transportation officer a letter containing the following information:

- (1) Orders or instructions authorizing the movements.
- (2) Name and number of the organization.
- (3) Number of officers, enlisted men, and vehicles.
- (4) Quantity of company or platoon property and the authorized and checkable baggage.
- (5) Date, place of entraining, and destination.
- (6) Approximate car requirements.
  - (a) *Company.* Approximate requirements for movement of the company are 11 stock cars, 1 boxcar, and 6 pullman cars or troop sleepers. For short movements, 3 day coaches may be substituted for the pullman cars or troop sleepers. With augmentation personnel, 10 pullman cars or troop sleepers are required for the company.
  - (b) *Platoon.* Approximate requirements for the movement of one platoon are 3 stock cars, 1/2 boxcar, and 1 pullman car or troop sleeper. For short movements 1 day coach may be substituted for the pullman car or troop sleeper.
  - (c) *Animal.* For transportation of animals by rail, see FM 25-5.

*b. References.* See appendix I.

#### 75. PLAN FOR MOVEMENT

The commander of the quartermaster pack company will be informed by the transportation officer where the freight and transportation equipment will be placed and when the equipment will be ready for loading. The commander will assure himself that all necessary assignments of personnel are made for the movement of the unit.

a. *Entraining Officer.* When the pack company is to move either as a unit or a platoon, the company commander will detail a platoon leader to serve as entraining officer whose duties are—

- (1) To examine the approaches of the entraining point so that entraining may proceed without confusion, delay, or interruption.
- (2) To supervise and expedite the loading of personnel and property.
- (3) To collect and transmit checkers' lists to the appropriate transportation officer.
- (4) To make necessary assignments of men to cars. Normally, the entraining officer will allow only one entrance to be used in each car and will instruct the men entering the cars to proceed directly to their assigned space.

b. *Train Transportation Officer.* The company commander will detail a platoon leader to be train transportation officer whose duties are—

- (1) To make a record of written orders for transportation.
- (2) To account for all personnel on the train.
- (3) To prepare a bill of lading for organizational equipment in accordance with the instructions in AR 55-145. This bill of lading will usually be turned over to the transportation officer at the destination.
- (4) To designate one noncommissioned officer as checker for each car. The checker will list the property loaded and record the data required for the preparation of the bill of lading.

c. *Baggage Detail.* The company commander will see that a baggage detail is formed to load and unload the baggage.

d. *Guard Detail.* The company commander will see that a guard detail is formed. At least two men should ride in an unsealed boxcar to guard the company or platoon property.

e. *Time of Departure.* Immediately before departure, the company commander will report by telegram to the traffic control division, giving the exact time of departure. Upon arrival at the new destination he will report departure and arrival time to the traffic control division of the transportation section of the new station. However, in a theater of operations, because of disruptions in rail transportation, the above will be complied with only so far as practical.

f. *Mess Officer.* The company commander will appoint a mess officer, who will supervise the preparation and serving of meals or make arrangements for meals.

*g. Orders.* The company commander will issue orders to his company (or the platoon leader if the platoon is operating separately) in conformity with SR 55-705-25.

*h. Delays.* The company commander (or platoon leader, if he is in charge of the movement) will maintain a complete record of delays en route. The record should include any occurrences that compel the use of railway equipment after the scheduled hour of arrival at destination. Such a record will answer questions that may arise as to the improper use of railway facilities.

*i. Inspection.* The company commander (or platoon leader) will make an inspection of railway equipment that has been vacated in order to determine whether any railway property has been damaged or unlawfully removed. He will report the results of this inspection to the commanding officer of the new home station.

*j. Certificate.* The company commander will obtain the required railroad transportation and accommodations certificates.

*k. Detraining.* The commander is responsible that troops be ready to detrain promptly. The officers and guard detail will detrain first. The baggage detail will be left behind to unload the baggage and reload it for transport to the quartering area. When the quartering area is distant from the detraining point, property should be unloaded by the entire company or platoon to save time. If practicable, noncommissioned officers who acted as checkers when loading will serve in the same capacity when unloading.

*l. Report Required for Separate Freight Shipment.* When the freight shipment and the personnel move separately, the report to the commander of the new station will contain the following information—

(1) Routing by rail.

(2) Car numbers (boxcar or flatcar) and general description of contents.

## 76. PACKAGING

The commander of the pack company must be certain that all company equipment for rail shipment is packaged and packed to withstand unusual transportation, handling, and climatic conditions. He will see that each shipment conforms to all the requirements necessary to insure its arrival at its destination in sound condition. Field ranges, fuel containers, and other items in which gasoline or other flammables are used must be drained and flushed before being boxed and crated. A certificate that this action has

been taken will be attached to crates containing the items and to the packing list.

*a. Shipping Containers.*

- (1) *Weight.* Containers should be as light as possible consistent with the nature of the item, conditions of handling and distribution, and manner of use in order to permit handling by the smallest number of individuals.
- (2) *Cubage.* Shipping containers should have a minimum cubage in order to conserve shipping and storage space. Cubage can be reduced by disassembling projecting parts, arranging them compactly, wrapping and packaging them, and placing them securely within the shipping container. No part should be removed unless it can be readily reassembled (app. V).

*b. Packaging Procedures.*

- (1) *Wrapping.* Commercial wrapping paper will be used when possible to wrap items.
- (2) *Tying.* Twine should be used in tying packages, interior containers, and articles that are to be packed in shipping containers. If the package is large and bulky, twine, hemp, finished (No. 36) or heavier should be used.
- (3) *Bolting.* Items that do not completely fill shipping containers should be bolted to prevent movement inside the containers. Items having projecting parts that might be broken or might puncture the container should be rigidly supported or suspended. The clearance between projecting parts and the inside face of the container should be at least an inch.

## 77. BLOCKING AND BRACING

*a. Blocks.* One block nailed to the floor outside each vehicle is ordinarily enough to prevent lateral movement. As an additional precaution, an inside block should be used and a rope or length of wire should be passed over the wheel, one turn being made around each block. The lumber used for blocks should be 2 by 4's.

*b. Chocks.* Security against longitudinal movement requires two chocks to each wheel. Chocks must be at least 3 inches high.

*c. Nails.* Fortypenny nails should be used to secure blocks and chocks to the floor of the car.

*d. Wire.* Heavy wire (No. 8 or 9 black annealed steel wire or its equivalent) should be used for securing loads unless other wire is specified.

*e. Reference.* Detailed drawing of blocking and bracing the 2½-ton cargo truck are given in appendix IV.

#### Section IV. AIR

### 78. REQUIREMENTS

*a. Orders.* Orders for movement of the pack company by air will be issued by higher authority to the company commander and to the air task force supplying transportation. The orders normally will comprise—

- (1) Composition of the unit.
- (2) Designation of departure airport.
- (3) Date and hour transport begins.
- (4) Destination. If this information is secret, the headquarters issuing the orders will classify it as such.
- (5) Method of movement from present site and quartering arrangements at or near the airport.
- (6) Restrictions on amount or type of equipment and supplies to be carried.
- (7) Probable length of time during which the unit must be self-sufficient.
- (8) Provision of subsequent supplies.

*b. Company Commander's Report.* The company commander will prepare a report for the Air Force commander. The report will contain the following information:

- (1) Strength and composition of the unit.
- (2) Total weight of supplies and equipment.
- (3) Nomenclature, weight, cubage, and number of bulky items.
- (4) Amount of baggage.

### 79. PLAN FOR MOVEMENT

*a. Information.*

- (1) *Initial.* In compliance with orders from higher authority, the company commander will compile information on the following:
  - (a) Method of loading desired.
  - (b) Initial operations at destination, such as ground transportation or tactical dispersion.

(2) *Destination.* If orders do not include specific items of supply and equipment that must be excluded from air shipment, the company commander will determine—

- (a) Tentage available at destination.
- (b) Operating equipment available at destination.
- (c) Vehicles available at destination that may be utilized in place of authorized vehicles.
- (d) Operating supplies available at destination.

*b. Procedure.* The following operations must be considered by the company commander :

- (1) Movement of the unit or platoons from its present location to the vicinity of the departure airport, from which marching and loading tables will be necessary.
- (2) Movement to loading points at departure airport.
- (3) Loading of trucks to correspond to the loading of planes.
- (4) Movement to loading points, with consideration given to time, route, traffic control, loading arrangements, and guides.
- (5) Loading of planes.

*c. Packaging and Packing.* Procedures for packaging and packing are similar to those discussed in paragraph 72.

*d. Personnel and Baggage.* Preparations for movement of personnel and baggage will be determined by the type of planes used. Baggage may be carried in the same plane as personnel or in a separate plane.

*e. Animals.* For transportation of animals by air, see FM 25-5.



## APPENDIX I

### REFERENCES

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#### 1. ADMINISTRATION

AR 220-70	Companies—General Provisions.
SR 320-5-1	Dictionary of United States Army Terms.
SR 320-50-1	Authorized Abbreviations.
SR 615-25-15	Military Occupational Specialties.
SR 615-25-20	Career Fields.
FM 27-10	Rules of Land Warfare.
TM 12-250	Administration.
TM 12-255	Administrative Procedures.
TF 11-235	Articles of War.

#### 2. CAMOUFLAGE

FM 5-20	Camouflage, Basic Principles.
FM 5-20A	Camouflage of Individuals and Infantry Weapons.
FM 5-20B	Camouflage of Vehicles.
FM 5-20C	Camouflage of Bivouacs, Command Posts, Supply Points, and Medical Installations.
FM 5-20H	Camouflage Materials and Manufacturing Techniques.
GTA 5-3	Camouflage, Series One.
GTA 5-4	Camouflage, Series Two.

#### 3. DEMOLITION

FM 5-25	Explosives and Demolitions.
TB QM 27	Demolition of Quartermaster Supplies and Equipment.
GTA 5-5	Explosives and Demolitions.

#### 4. FOOD SERVICE

TM 10-401	Food Service Supervision.
TM 10-405	The Army Cook.
TM 10-405A	Cook's Workbook.

TM 10-412  
TM 10-418  
TF 10-1644  
FS 10-96

FS 10-127

Recipes.  
Meat Processing Ration Issue.  
Mess Management.  
Messing—Part II: The Railway Kitchen.  
Mess Supervision—Part III: The Use of Left-overs.

## 5. INDEXES

SR 110-1-1

Index of Army Motion Pictures and Film Strips.

SR 310-20-3

Index of Training Publications.

SR 310-20-4

Index of Technical Manuals, Technical Regulations, Technical Bulletins, Supply Bulletins, Lubrication Orders, and Modification Work Orders.

SR 310-20-7

Index to Tables of Organization and Equipment, Reduction Tables, Tables of Organization, Tables of Equipment, Type Tables of Distribution, and Tables of Allowances.

SR 310-20-5

Index of Administrative Publications.

SR 310-20-6

Index of Blank Forms and Army Personnel Classification Tests.

## 6. MOTOR OPERATION AND MAINTENANCE

AR 700-105

Motor Vehicles.

AR 750-5

Maintenance Responsibilities and Shop Operation.

FM 25-10

Motor Transport.

TM 9-871A

¼-Ton, 2-Wheel Cargo Trailer M100.

TM 9-883

1-Ton, 2-Wheel Cargo and Water Trailers.

TM 21-300

Driver Selection and Training.

TM 21-305

Driver's Manual.

TM 37-2810

Motor Vehicle Inspection and Preventive Maintenance Services.

ORD 7-8-9 SNL G-508

Truck, 2½-Ton 6 x 6 (GMC).

ORD 7-8 SNL G-527

Trailer, 1-Ton 2-Wheel, Water Tank, 250 Gal.

ORD 7 SNL G-740  
TF 10-2054

GTA 9-22

GTA 9-25

Truck, 1/4-Ton, 4 x 4, Utility, M38.  
First Echelon Maintenance for Motor Vehicles.

Truck, 2 1/2-Ton, 6 x 6, GMC, Brake System.

Preventive Maintenance, Automotive.

## 7. MOVEMENTS.

AR 55-130

Transportation of Troops and Other Groups; General.

AR 55-135

Transportation of Troops; Railway Equipment.

AR 55-145

Transportation of Troops; Entraining, Duties En Route, and Detraining.

AR 55-155

Transportation of Public Property (Except Animals) and Remains.

AR 55-165

Transportation of Animals.

AR 55-485

Transportation of Animal on Transports.

SR 55-155-15

Loading Rules, Test Loadings, and Test Shipments.

SR 55-705-25

Troop Movement Commander's Guide.

SR 55-720-1

Preparation for Oversea Movement of Units (POM).

FM 25-10

Motor Transport.

TM 9-2854

Instruction Guide: Ordnance Packaging and Shipping (Posts, Camps, and Stations)

## 8. SPECIAL OPERATIONS

FM 70-10

Mountain Operations.

FM 72-20

Jungle Warfare.

## 9. SUPPLY

AR 711-20

Supply Economy.

SR 735-30-1

Property Accountability, Supply and Property Accounting Procedures for Organizations and Units.

FM 10-10

Quartermaster Service in Theater of Operations.

## 10. TRAINING AND OPERATIONS

FM 5-32	Land Mine Warfare.
FM 8-35	Transportation of the Sick and Wounded.
FM 20-15	Tents and Tent Pitching.
FM 21-5	Military Training.
FM 21-75	Combat Training of the Individual Soldier and Patrolling.
FM 22-5	Drills and Ceremonies.
FM 23-5	U. S. Rifle, Caliber .30, M1.
FM 23-7	U. S. Carbine, Caliber .30, M1 and M1A1.
FM 23-32	Rocket Launchers.
FM 23-35	Pistols and Revolvers.
FM 23-41	Submachine Gun, Caliber .45, M3 and M3A1.
FM 23-65	Browning Machine Gun, Caliber .50, HB, M2.
FM 25-5	Animal Transport.
FM 25-7	Pack Transportation.
FM 26-5	Interior Guard Duty.
TM 3-205	The Gas Mask.
TM 3-230	The Horse Gas Mask, M4 and M5.
TM 5-225	Rigging and Equipment Hand Tools.
TM 9-867	Maintenance and Care of Hand Tools.
TM 10-268	Repair of Footwear and Leather Goods.
TM 10-269	Repair of Canvas and Webbing.
TM 10-633	Canvas Repair Kit.
TF 2-943	Pack Transportation — Part I: Selection of the Animal.
TF 2-944	Pack Transportation — Part II: The Pack Saddle.
TF 2-945	Pack Transportation — Part III: The Cargo Saddle.
TF 2-946	Pack Transportation — Part IV: Field Adjustment and Carrying of Equipment.

TF 2-1267	Horsemastership — Care of Animals in the Field.
TF 7-2023	Interior Guard Duty—The Sentinel.
TF 7-2051	The Soldier in Bivouac.
FS 5-20	Rigging—Part II: Knots.
GTA 5-8	Knots.
GTA 7-1	Rifle Marksmanship.
ATP 10-215	Quartermaster Pack Company.
ATT 10-24	Quartermaster Pack Company.

## APPENDIX II

### MINIMUM TRAINING SCHEDULE

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#### 1. GENERAL

The following minimum training schedule is planned to give systematic and progressive technical training to pack personnel of the quartermaster pack company. Only essential material required to train the pack troops in their technical duties in the shortest possible time consistent with efficiency is given in the schedule. Since the schedule is a guide only, it must be varied to meet the immediate training requirements.

## 2. UNIT TRAINING

Hours	Lessons	Text references	Equipment and training aids
2	Mission, organization assignment, capabilities, duties of personnel.	T/O&E 10-118	T/O&E Chart.
2	Equipment nomenclature and maintenance	FM 10-18 T/O&E 10-118 FM's 10-18, 25-5, 25-7	TF's 2-944, 2-945.
26	Animal management	FM's 6-110, 25-5	TF 2-1267. FS's 2-9, 2-13, 2-14, 8-38, 8-45, 8-49, 8-54.
26	Pack transportation	FM's 6-110, 25-5, 25-7	TF's 2-943, 2-946, 5-201, 5-202, 5-203.
8	Movement by air	TM 71-210	TF's 10-1239, 10-1240.
4	Movement by rail	SR 55-705-25	
20	Horsemanship	FM's 25-5, 25-7	
20	Stream crossing and swimming	FM's 21-22, 25-5	TF's 7-1303, 7-1304, FS 7-135.
2	Fire precaution	TM's 5-315, 9-1799	
40	Field training	All previous references	

## APPENDIX III

### UNIT PROFICIENCY STANDARDS

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#### 1. BASIC

- a.* Do the men have knowledge of first aid?
- b.* Are the men trained in map reading?
- c.* Are the men trained in proper conduct if captured?
- d.* Are the men trained in the use of gas mask?
- e.* Are the men oriented in the mission of the unit?
- f.* Are the men trained in the proper use of individual and organizational weapons?
- g.* Has each man completed his basic military training?

#### 2. TECHNICAL

Are the personnel able to perform their primary mission? (Determine by spot check of the special tasks set up for each.)

- a.* First sergeant.
- b.* Mess steward.
- c.* Stable sergeant.
- d.* Supply sergeant.
- e.* Cooks and cook's helper.
- f.* Company personnel management clerk.
- g.* Personnel administrative clerk.
- h.* Light truck driver.
- i.* Armorer.
- j.* Motor messenger.
- k.* Pack platoon sergeant.
- l.* Horseshoer.
- m.* Saddler.
- n.* Pack squad leader.
- o.* Assistant squad leader.
- p.* Packers and drivers.

#### 3. HOUSEKEEPING AND SUPPLY

- a.* Is the unit supply section trained to function properly?
- b.* Is the unit mess section trained to function properly?
- c.* Is the unit administrative section trained to function properly?

#### 4. PRACTICAL TEST

Set up problems involving conduct of the unit in the following operations:



*a. Defense of Bivouac.*

- (1) Is the plan of defense tactically sound?
- (2) Are all personnel armed with their permanently assigned weapons?
- (3) Does the plan for issue of arms and ammunition adequately meet the requirements of speed and safety and of the proper safeguarding of weapons?
- (4) Are fox holes properly dug or, if the soil does not permit digging, have troops selected adequate cover?
- (5) Is the plan adequate for defense against ground troops, paratroops, and air attacks?

*b. Demolition.*

- (1) Is the demolition plan both tactically and technically sound?
- (2) Are all personnel acquainted with the demolition plan and capable of performing their mission?

*c. Showdown Inspection.*

- (1) Is organizational equipment complete and serviceable?
- (2) Is individual equipment complete and serviceable?

*d. Unit Performance.* With due consideration to the above problems, determine the following:

- (1) Can the unit perform its primary mission?
- (2) Can the unit pack 5 plus tons per day, maximum payload of 160 pounds per mule, over a distance not to exceed 6 miles from truck head?
- (3) Can the platoon perform its primary mission when it is operating as a separate unit?

*e. Ground Action.* Set up a problem involving the unit in offensive ground action as a combat rifle unit (covering tactical training of infantry soldier). Can the unit perform this mission in a satisfactory way?

*f. Operation and Maintenance.* Check operation and maintenance of the organizational equipment of the unit as follows:

- (1) Are the mules properly fed, trained, and cared for?
- (2) Are saddles and other pack equipment being maintained properly?
- (3) Are the vehicles properly maintained?
- (4) Is preventive maintenance practiced?
- (5) Are technical maintenance and operating instructions provided for each vehicle?
- (6) Are organizational weapons in satisfactory operating condition?

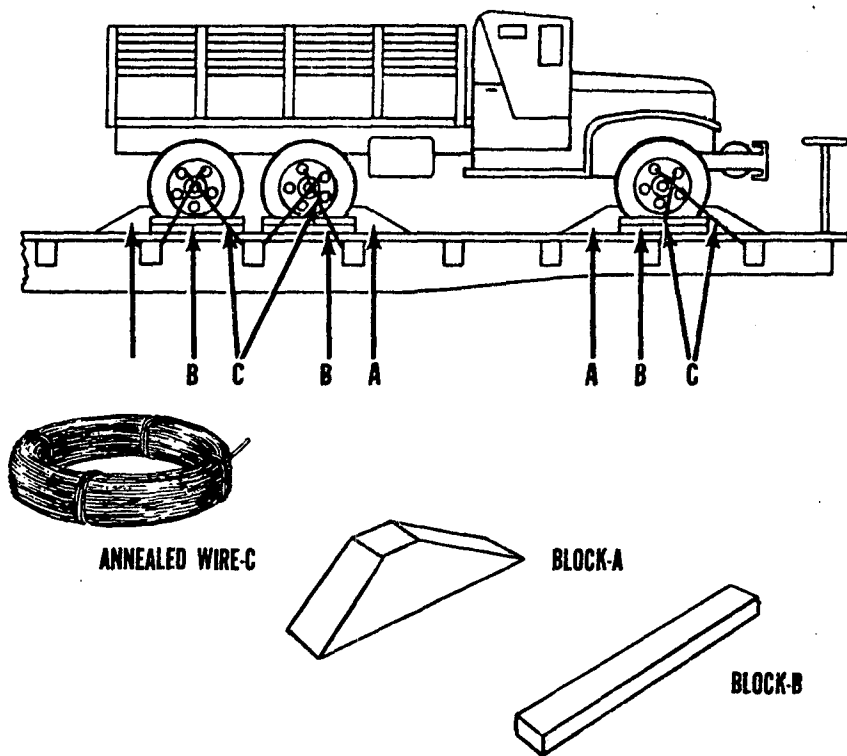
## APPENDIX IV

### BLOCKING AND BRACING FOR RAIL MOVEMENT

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#### 1. METHOD NO. 1

Place blocks (A) one to the front and one to the rear of each front wheel; one to the front of each forward rear wheel; and one to the back of each rearward rear wheel (fig. 7). Nail the heel of each block to the car floor with five forty-penny nails. Toenail that part of each block under the tire tread to the car floor with two forty-penny nails. After using suitable cushioning material between blocks and wheels, such as burlap or waterproof paper, place two blocks (B) against the outside face of each wheel. Nail the lower block (B) to the car floor with three forty-



*Figure 7. Blocking and bracing the six-wheeled cargo truck—  
(Method No. 1).*

penny nails and the top block to the lower block with three forty-penny nails. Pass four strands (two wrappings) of No. 8 gage black annealed wire (C) through the holes in the wheels and through the stake pockets. Tighten wires enough to remove slack.

## 2. METHOD NO. 2

Place blocks (D), one to the front and one to the rear of each front wheel; one to the front of each forward rear wheel; and one to the back of each rearward rear wheel (fig. 8). The blocks will

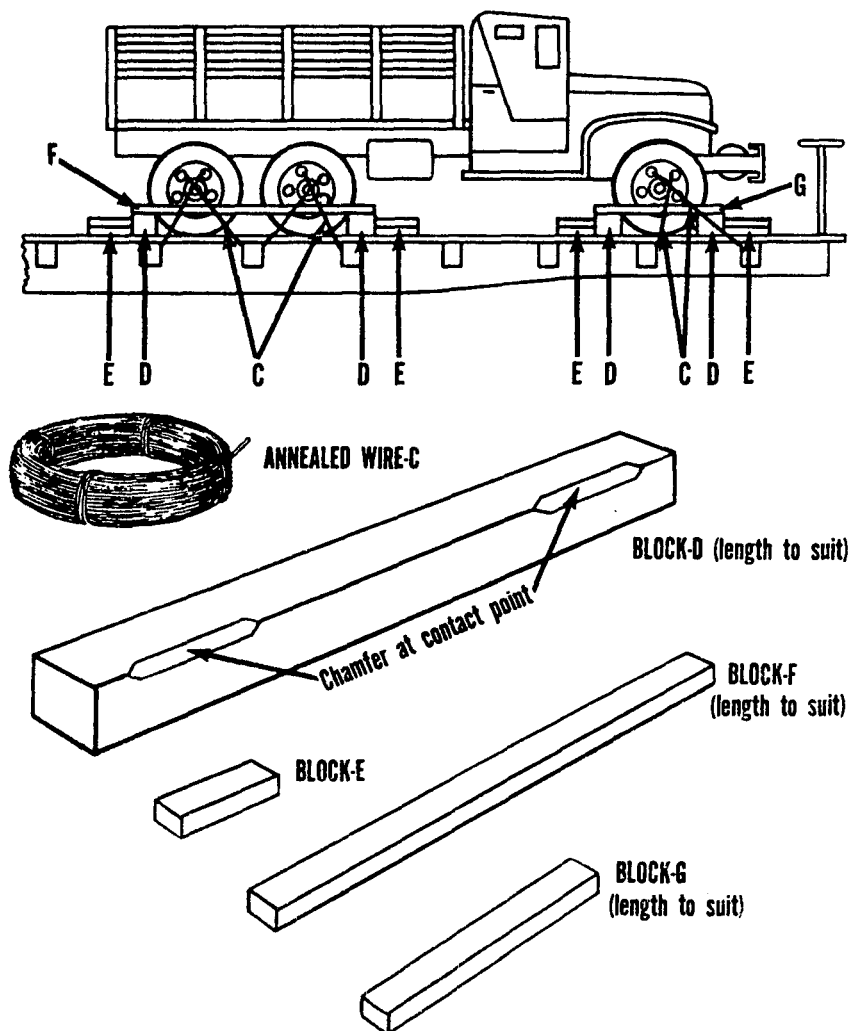


Figure 8. Blocking and bracing the six-wheeled cargo truck—  
(Method No. 2).

be at least 8 inches wider than the over-all width of the vehicle at the car floor. Nail upper block (E) to lower block (E) with five fortypenny nails. Place four blocks (F) to blocks (D) with three fortypenny nails. Use suitable cushioning material between the cleats and tires. Pass four strands (two wrappings) of No. 8 gage black annealed wire (C) through the holes in the wheels and through the stake pockets. Tighten wire enough to remove slack.

## APPENDIX V

### WEIGHTS AND CUBAGES

#### 1. QUARTERMASTER ITEMS

The following table showing weights and cubages of most quartermaster items of equipment listed in T/O&E 10-118A may be used for planning of rail, water, or air movements of the quartermaster pack company.

<i>Item</i>	<i>Weight per unit (pounds)</i>	<i>Cubage per unit (cubic feet)</i>
Axe, chopping, single bit, standard grade, weight 4-pounds, with handle.	5	.26
Bag, canvas, water, sterilizing, porous, complete with suspension ropes and cover.	19	1.33
Bag, carrying, ammunition-----	2	1.15
Bag, feed, M-1938 (estimate)-----	2.75	.20
Bag, grain, M-1912-----	2.73	.17
Bell, pack animal, without strap-----	1.97	.08
Blanket, saddle, OD, 73- x 85-inch-----	8.33	.52
Bridle, cavalry, M-1909-----	5.40	.02
Brush, horse, M-1912-----	.90	.04
Bucket, canvas, water, 18-quart-----	2	1.35
Bucket, general purpose, metal, galvanized, heavy weight, without lip, 14-quart capacity.	6	.34
Burner, oil, stove, tent, M-1941-----	27	1.23
Can, corrugated, nesting, galvanized, with cover, 10-gallon.	18	1.27
Can, corrugated, nesting, galvanized, with cover, 16-gallon.	30	2.18
Can, corrugated, nesting, galvanized, with cover, 24-gallon.	31	3.55
Can, corrugated, nesting, galvanized, with cover, 32-gallon.	36	4.45
Can, gasoline, military, 5-gallon capacity-----	10	1.01
Can, water, 5-gallon-----	12	1.39
Case, field, for typewriter nonportable, 11-inch carriage	25	4.26
Chest, supply (pack artillery), saddler's (complete)---	121	4.92
Clock, alarm-----	1	.04
Collar, breast, saddle, Phillips' pack-----	3.28	.10
Container, food, insulated, M-1944-----	31	2.89
Cover, pack (mantas), 6 x 6 feet-----	6.53	.20
Desk, field (empty) fiber, company-----	54	4.28

<i>Item</i>	<i>Weight per unit (pounds)</i>	<i>Cubage per unit (cubic feet)</i>
Flag, guidon bunting-----	---	.02
Fly, tent, wall, large, complete (with pins and poles) --	124	4.27
Fork, hay, 3-tine, length of handle 48-inch-----	4.17	.30
Fork, manure, long handled 4-tine-----	5	.25
Goggles, M-1944-----	1	.08
Kit, barber, with case-----	6	.27
Kit, box strapping, 3/8-inch-----	106	2.71
Lantern, gasoline, leaded fuel-----	7	.74
Machete, 18-inch blade, M-1942-----	1.36	.02
Mask, face launcher, rocket-----	.02	.01
Mattock, pick, with handle, weight 5-pound-----	10	.32
Outfit, cooking, 1-burner, M-1950-----	6	1
Outfit, officer's mess, M-1941-----	42	2.19
Puller, nail, 18-inch-----	5	.07
Pump, barrel, rotary, kerosene or gasoline, with 6-foot hose and nozzle.	50	2.62
Rake, general purpose, 14 teeth-----	3.33	.78
Range, field, M-1937, 3 unit-----	1,295	57.33
Range, field, M-1937, 4 unit-----	1,895	74.95
Roll, pioneer, M-1, complete with tools-----	162	9.77
Roll, tool, canvas, Phillips' pack saddle (complete with tools).	4.40	.14
Saddle, pack, cargo, M-1950 (estimate)-----	134	9.98
Saddle, packer's, riding, full rigged-----	55	3.86
Scoop, grain, D-handled-----	6.67	.68
Screen, latrine, complete (with pins and poles)-----	103	3.45
Shovel, general purpose, D-handled, strapback, round point, No. 2.	5	.44
Spare parts, saddle, Phillips' pack, cargo-----	188	
Stencil-outfit, complete, with figures and letters 1/2 inch and 1 inch.	2	.09
Stove, tent, M-1941-----	61	2.18
Tent, command post, M-1945, complete (with pins and poles).	196	7.36
Tool-set (complete with tools), carpenter's, No. 2-----	28	.97
Tool-set (complete with tools), horseshoer's, No. 1-----	200	
Tube, flexible nozzle-----	2	.04
Typewriter, nonportable, 11-inch carriage-----	74	4.55
Typewriter, portable, with carrying case-----	35	1.74

## 2. VEHICLES

The following table lists the net weights, cubages, and over-all areas of vehicles, including trucks and trailers, assigned to the company in T/O&E 10-118A.

<i>Vehicle</i>	<i>Net weight (pounds)</i>	<i>Cubage (cubic feet)</i>	<i>Area (square feet)</i>
Trailer, ¼-ton, 2W, cargo-----	550	132	33
Trailer, 1-ton, 2W, cargo-----	1,300	432	67
Trailer, 1-ton, 2W, water tank, 250-gallon---	1,500	370	63.5
Truck, ¼-ton, 4 x 4 utility, M38-----	3,600	320.5	
	(Approx)	(Approx)	
Truck, 2½-ton, 6 x 6, cargo-----	10,350	1,471	161
Truck, 2½-ton, 6 x 6 cargo, w/wn-----	10,745	1,446	159

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